

Amendments to the claims:

This listing of the claims will replace all prior versions and listings of the claims in the application:

Listing of Claims:

1. (Currently amended) A portable Portable electronic device (10) arranged to be communicating configured to communicate with a reference frequency generator (12) and comprising:
a receiving unit (20) receiving configured to receive a reference frequency,
a frequency source (22) generating configured to generate a frequency of the device,
and
at least one control unit (24, 30; 24) arranged to: ~~in case of contact with the reference frequency generator: configured to supply a new control value to the frequency source, said value being determined by the frequency source frequency and the reference frequency~~[[,]] and to calculate a rate of change value at least based on the new and a previous control value[[,]] ~~in case of no contact with the reference generator: if there is communication with the reference generator, and configured to calculate a new control value based on the rate of change value and the last used control value~~[[,]] and to supply the new control value to the frequency source if there is no communication with the reference generator for controlling it.
2. (Currently amended) A portable Portable electronic device according to claim 1, further comprising a detecting unit (32) detecting that is configured to detect if the device is in contact communication with the reference frequency generator or if contact communication is lost.
3. (Currently amended) A portable Portable electronic device according to claim 1 or 2, further comprising a control value store (26) at least including comprising the last used control value and a change of rate store (28) at least including comprising the rate of change associated with the last used control value.

4. (Currently amended) A portable Portable electronic device according to any previous claim 2, wherein there is further comprising a first control unit (24) arranged configured to control the frequency source in case of contact with the reference frequency generator if there is communication with the reference generator and a second control unit (30) arranged to control the frequency source in case of no contact with the reference frequency generator if there is no communication with the reference generator.
5. (Currently amended) A portable Portable electronic device according to claim 4, further comprising a switch (34) arranged configured to connect the first control unit (24) with the frequency source in case if the detecting unit detects connection communication and to connect the second control unit (30) with the frequency source in case it does not if the detecting unit does not detect communication.
6. (Currently amended) A portable Portable electronic device according to any previous claim 1, further including comprising a timer (35) starting in case contact configured to start if communication is lost with the reference frequency generator, wherein the at least one control unit (30) controlling the frequency source in case of no contact with the reference frequency generator (22) is arranged is configured to stop using the rate of change information if the counter reaches a predetermined value.
7. (Currently amended) A portable Portable electronic device according to claim 6, wherein the timer (35) is reset if contact communication with the reference frequency generator is established after being lost.
8. (Currently amended) A portable Portable electronic device according to claim 6 or 7, wherein the predetermined value is dependent on the rate of change information.
9. (Currently amended) A portable Portable electronic device according to claim 8, wherein the predetermined value is high if the rate of change is low and is low if the rate of change is high.

10. (Currently amended) A portable Portable electronic device according to any previous claim 1, wherein it the portable electronic device is a mobile phone and the reference frequency generator is a base station.

11. (Currently amended) An apparatus comprising: Control device (24, 26, 28, 30, 32, 34, 35; 24, 26, 28, 32) for a frequency source (22) using an external reference frequency generator (12), arranged to:

a control device for a frequency source that uses an external reference frequency generator, the control device being configured to supply a new control value to the frequency source, said value being determined by the frequency source frequency and the reference frequency and to calculate a rate of change value at least based on the new and a previous control value if there is communication with the reference generator, and configured to calculate a new control value based on the rate of change value and the last used control value and to supply the new control value to the frequency source if there is no communication with the reference generator.

in case of contact with the reference frequency generator (22):

supply a new control value to the frequency source, said value being determined by the frequency source frequency and the reference frequency, and

calculate a rate of change value at least based on the new and a previous control value,

in case of no contact with the reference generator:

calculate a new control value based on the rate of change value and the last used control value, and

supply the new control value to the frequency source for controlling it.

12. (Currently amended) A method Method of regulating an a frequency source in a portable electronic device, comprising the steps of:

if there is communication with the reference generator:

supplying a new control value to the frequency source, said value being determined by the frequency source frequency and the reference frequency; and calculating a rate of change value at least based on the new and a previous control value;

if there is no communication with the reference generator:

calculating a new control value based on the rate of change value and the last used control value; and

supplying the new control value to the frequency source.

in case of reception of a reference frequency from an external reference frequency generator, (step 38):

supplying a new control value to the frequency source, (step 42) said value being determined by the frequency source frequency and the reference frequency, (step 40), and

calculating a rate of change value at least based on the new and a previous control value, (step 44),

in case of no reception of reference frequency signals from the external reference frequency generator, (step 38):

calculating a new control value based on the rate of changed value and the last used control value, (step 48), and

supplying the new control value to the frequency source for controlling it, (step 52).

13. (Currently amended) A method Method according to claim 12, further comprising the step of detecting reception or no reception of reference frequency signals.

14. (Currently amended) A method Method according to claim 12 or 13, further comprising: the step of

storing the supplied control value; and

storing the rate of change value if reference frequency signals from the external reference frequency generator are received.

~~, (steps 46, 52) and in case of reception of reference frequency signals from the external reference frequency generator also the rate of change value (step 46).~~

15. (Currently amended) A method Method according to ~~any of claims 12–14, claim 13, further comprising including the steps of:~~

if there is no reception of reference signals from the external reference frequency generator:

~~in case of no reception of reference frequency signals from the external reference frequency generator:~~

counting the time during which no reference frequency signals are received[[],]; and
stopping calculating new control values if the time reaches a preset time limit.

16. (Currently amended) A method Method according to claim 15, further comprising: including the step of

resetting the time if reference frequency signals are received again.

17. (Currently amended) A method Method according to claim 15 or 16, wherein the predetermined value preset time limit is dependent on the rate of change value.

18. (Currently amended) A method Method according to claim 17, wherein the predetermined value preset time limit is high if the rate of change value is low and is low if the rate of change value is high.